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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/779,510	Applicant(s) CARTER ET AL.
	Examiner KimbleAnn Verdi	Art Unit 2194

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 14-37 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 14-37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 June 2008 and 13 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is in response to the Application filed on February 13, 2004. Claims 1-12 and 14-37 are pending in the current application.

Claim Objections

1. Claims 8, 12, 14, 18, 21 and 24 are objected to because of the following informalities:

- a. Claim 8, line 2, the recitation of "a host application", should be "the host application";
- b. Claim 12, line 2 the recitation of "the host API should be "the API of the host application";
- c. Claim 14, line 4, claim 18, line 5, and claim 24, line 3, the recitation of "API" should be "application programming interface (API)";
- d. Claim 18, line 8, the recitation of "the API", should be " the API of the host application";
- e. Claim 21, line 2 the recitation of "the API", should be "the API of the host application".
- f. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

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art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-13 and 14-37 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

4. Claims 1, 14, 18, 24, 31, and 37 the recitation of "not native" contains a negative limitation which does not have basis in the original disclosure. Thorough review of the specification by the Examiner did not result in finding of the subject matter properly disclosed in the specification.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claim 14 recites the limitation "the storage media" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 101

8. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. **Claims 24-30 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.**

10. Claims 24-30 are directed to a process (method), however, the process does not include a physical structure and are not tied to another statutory class, as such the claims are not directed to statutory subject matter.

In contrast, a “computer implemented method” is a process claim with defined structural and functional interrelationships and tied to machine statutory class and therefore directed to statutory subject matter.

Appropriate correction or amendment is required.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1-7, 12, 14-18, 21-22, 24-29, 31-34, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fry et al. (hereinafter Fry) (U.S. Publication No. 2003/0163603 A1) in view of White et al. (hereinafter White) (U.S. Patent 7,370,335 B1).

13. Fry cited in previous Office Action.

14. As to claim 1, Fry teaches the invention substantially as claimed including a system embodied on a computer-readable storage medium that facilitates extending the functionality of an application, comprising:

a schema component (paragraph [0020]) that includes a schema element (paragraph [0020]) representative of domain terminology of a problem to be solved in a host application (e.g. any defined schema is representative of domain terminology of a problem to be solved (paragraph [0020])).

a mapping component (paragraph [0022]) that maps the schema element to a construct of an API of the host application (paragraphs [0020] and [0030]).

15. Fry does not explicitly disclose the domain terminology is not native to a general application programming interface (API) of the host application; and

a mapping component which enables the host application to operate on the domain terminology.

16. However White teaches the domain terminology is not native to a general application programming interface (API) of the host application (col. 7, lines 9-11 and 15-22); and

a mapping component (i.e. adapter layer, col. 5, lines 1-2 and 8-1, and col. 7, lines 9-11) which enables the host application to operate on the domain terminology (col. 7, lines 22-24, col. 8, lines 20-24, and col. 24, lines 12-22).

17. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified data binding framework of Fry with the teachings of an adapter layer from White because this feature would have provided a mechanism to map vendor-specific APIs to a standardized API (col. 5, lines 21-25 of White).

18. As to claim 2, Fry teaches the API is associated with at least one of a word processing application, spreadsheet application, drawing application, presentation graphics application, website design and development application, database application, project management application, publication application, note management application and, browser and communication application (paragraphs [0022] and [0023]).

19. As to claim 3, Fry teaches the schema component (paragraph [0020]) facilitates generation of at least one of a data programming model (paragraph [0029]) and a view programming model (paragraphs [0020], [0030], and [0043]).

20. As to claim 4, Fry teaches a generation component (paragraph [0022]) that generates at least one of a data programming model (paragraph [0029]) and a view programming model (paragraphs [0020], [0030], [0029] and [0043]).

21. As to claim 5, Fry as modified by White teaches a generation component (paragraph [0022] of Fry) that generates a data programming model and a view programming model (paragraphs [0029] and [0043] of Fry) that are automatically connected to each other via data binding (paragraphs [0033]-[0035] of Fry), the view programming model provides an interface by which the host application operates on the domain terminology (col. 7, lines 22-24, col. 8, lines 20-24, and col. 24, lines 12-22 of White).

22. As to claim 6, Fry teaches a generation component (paragraph [0022]) that generates at least one of a data programming model (paragraph [0029]) and a view programming model (paragraphs [0020] and [0030]), wherein the data programming model interfaces to the host API via the view programming model (paragraphs [0041]-[0043]).

23. As to claim 7, Fry teaches a separation component (paragraph [0027]) that separates data from document content (paragraph [0027]).

24. As to claim 12, Fry as modified by White teaches the schema component (paragraph [0020] of Fry) and the mapping component (paragraph [0022] of Fry) facilitate generation of a new API that interfaces to the host API (paragraphs [0030] and [0043]-[0044] of Fry) and enables the host application to operate on the domain terminology (col. 7, lines 22-24, col. 8, lines 20-24, and col. 24, lines 12-22 of White).

25. As to claim 14, Fry teaches the invention substantially as claimed including a computer comprising:

a schema component (paragraph [0020]) that includes a schema element (paragraph [0020]) representative of domain terminology of a problem to be solved in a host application stored at the storage medium (e.g. any defined schema is representative of domain terminology of a problem to be solved (paragraph [0020]).

a mapping component (paragraph [0022]) that maps the schema element to a construct of an API of the host application (paragraphs [0020] and [0030]).

26. Fry does not explicitly disclose the domain terminology is not part of a native API of the host application;

a mapping component which enables the host application to operate on the domain terminology; and

processing hardware to execute instructions associated with the schema mapping component.

27. However White teaches the domain terminology is not native to a general application programming interface (API) of the host application (col. 7, lines 9-11 and 15-22); and

a mapping component (i.e. adapter layer, col. 5, lines 1-2 and 8-1, and col. 7, lines 9-11) which enables the host application to operate on the domain terminology (col. 7, lines 22-24, col. 8, lines 20-24, and col. 24, lines 12-22); and

processing hardware to execute instructions associated with the schema mapping component (col. 25, lines 12-34).

28. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified data binding framework of Fry with the teachings of an adapter layer from White because this feature would have provided a mechanism to map vendor-specific APIs to a standardized API (col. 5, lines 21-25 of White).

29. As to claim 15, Fry teaches the schema component (paragraph [0020]) includes a view schema (paragraph [0043]) that represents only data of interest of a host application (paragraph [0020]).

30. As to claim 16, Fry teaches the schema component (paragraph [0020]) includes a view schema (paragraph [0043]) that facilitates pulling a plurality of objects of interest from a plurality APIs of the host application (paragraph [0044]).

31. As to claim 17, Fry teaches at least one of the schema component (paragraph [0020]) and the mapping component (paragraph [0022]) facilitate generation of a view API (paragraphs [0043]-[0044]) that is a hybrid of view schema (paragraph [0043]) and the API of the host application (paragraphs [0043]-[0044]).

32. As to claim 18, Fry teaches the invention substantially as claimed including a system embodied on a computer-readable storage medium that facilitates extending the functionality of an application, comprising:

a schema component (paragraph [0020]) that includes a schema in terms of a problem to be solved in a host application (e.g. any defined schema is representative of domain terminology of a problem to be solved (paragraph [0020]) and a mapping of the terms to generic objects of an API of the host application (paragraphs [0020] and [0030]); and

a generation component (paragraph [0022]) that generates at least one programming model based on the schema that interfaces to the API (paragraphs [0020] and [0030]).

33. Fry does not explicitly disclose the terms are not native to the host application.

34. However White teaches the terms are not native to the host application (col. 7, lines 9-11 and 15-22).

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35. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified data binding framework of Fry with the teachings of an adapter layer from White because this feature would have provided a mechanism to map vendor-specific APIs to a standardized API (col. 5, lines 21-25 of White).

36. As to claim 21, Fry teaches the system of claim 18, the schema component facilitates generation of a new API that interfaces to the API (paragraphs [0030] and [0043]-[0044]).

37. As to claim 22, Fry teaches the schema component facilitates manipulation of a variable without reference to underlying register and stack allocations (paragraph [0044]).

38. As to claim 24, Fry teaches the invention substantially as claimed including a method of extending the functionality of an application, comprising:

creating a schema of problem domain elements of a problem to be solved (paragraph [0020]);

mapping the problem domain elements to constructs interpretable by one or more generic application interfaces of the application (paragraphs [0020] and [0030]);
and

generating a program model based on the mapping of the problem domain elements (paragraphs [0020] and [0030]) such that the one or more generic application

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interfaces can be accessed via the program model using the problem domain elements (paragraphs [0020] and [0030]).

39. Fry does not explicitly disclose the domain elements are not native to a an API of the application.

40. However White teaches the domain elements are not native to an API of the application (col. 7, lines 9-11 and 15-22).

41. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified data binding framework of Fry with the teachings of an adapter layer from White because this feature would have provided a mechanism to map vendor-specific APIs to a standardized API (col. 5, lines 21-25 of White).

42. As to claim 25, Fry teaches automatically separating the program model into a data model (paragraph [0029]) and a view model (paragraph [0043]).

43. As to claim 26, Fry teaches exposing data of the problem domain elements as named objects in a view model (paragraphs [0041]-[0043]).

44. As to claim 27, Fry teaches exposing data of the problem domain elements as declarations in a data model (paragraphs [0020], [0030], [0029]).

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45. As to claim 28, Fry teaches the program model is a schema-based, machine generated model (paragraphs [0020] and [0030]).

46. As to claim 29, Fry teaches exposing data of the problem domain elements as first class named objects (paragraph [0044]).

47. As to claim 31, Fry teaches a computer-readable storage medium having stored thereon computer-executable instructions for performing a method for extending the functionality of an application, comprising:

creating a mapping of a schema to one or more generic application interfaces of the application (paragraph [0030]);

generating a view model from the mapped schema (paragraph [0043]), the view model includes view data that is mapped to objects of the application (paragraph [0043]); and

generating a data model from the mapped schema (paragraph [0029]), the data model including data that is mapped to objects of the application (paragraphs [0029] and [0043]).

48. Fry does not explicitly disclose the view data is not native to the generic application interfaces of the application.

49. However White teaches the view data is not native to the generic application interfaces of the application (col. 7, lines 9-11 and 15-22).

50. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified data binding framework of Fry with the teachings of an adapter layer from White because this feature would have provided a mechanism to map vendor-specific APIs to a standardized API (col. 5, lines 21-25 of White).

51. As to claim 32, Fry teaches data binding the view model to the data model (paragraphs [0033]-[0035]).

52. As to claim 33, Fry teaches the view model uses portions of the schema that are mapped to problem domain terms related to a problem to be solved (paragraphs [0020], [0029] and [0043]).

53. As to claim 34, Fry teaches extracting the view data that is mapped to objects of the applications and exposing the view data as view controls (paragraphs [0020], [0029] and [0043]).

54. As to claim 37, Fry teaches the invention substantially as claimed including a system that facilitates extending the functionality of an application comprising:

means for creating a mapping of a schema to one or more generic application interfaces of the application (paragraph [0030]);

means for generating a view model from the mapped schema (paragraph [0043]), the view model includes view data that is mapped to objects of the application (paragraph [0043]);

means for generating a data model from the mapped schema (paragraph [0029]), the data model including data that is mapped to objects of the application (paragraph [0029]); and

means for propagating changes to the data model to contents of a document via a data binding mechanism to view controls (paragraph [0043]).

55. Fry does not explicitly disclose the view data is not native to the generic application interfaces of the application.

56. However White teaches the view data is not native to the generic application interfaces of the application (col. 7, lines 9-11 and 15-22).

57. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified data binding framework of Fry with the teachings of an adapter layer from White because this feature would have provided a mechanism to map vendor-specific APIs to a standardized API (col. 5, lines 21-25 of White).

58. Claims 8-11, 19-20, 23, 30, and 35-36 rejected under 35 U.S.C. 103(a) as being unpatentable over Fry et al. (hereinafter Fry) (U.S. Publication No. 2003/0163603 A1) in view of White et al. (hereinafter White) (U.S. Patent 7,370,335 B1), as applied to claims above, and further in view of Evans (U.S. Publication No. 2003/0159030 A1).

59. As to claim 8, Fry as modified by White teaches the invention substantially as claimed including a separation component (paragraph [0027]).

60. Fry as modified by White does not explicitly disclose generates a data island in a document of a host application.

61. However Evans teaches generates a data island in a document of a host application (paragraph [0022]).

62. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have further modified the unmarshaller of Fry as modified by White with the teachings of unencrypter from Evans because this feature would have further provided a mechanism to decrypt the data, in the data island, using the same encryption routine used by the sender, once the data island is decrypted, the data receiver loads the results into the XML document object model (DOM), and once the

results are in the DOM, the data elements are extracted from the data island using the appropriate XML document object properties and methods (paragraph [0020] of Evans).

63. As to claim 9, Fry as modified by White and further modified by Evans teaches the data island is editable (paragraph [0022] of Evans).

64. As to claim 10, Fry as modified by White and further modified by Evans teaches the data island can be at least one of accessed or modified without launching the host application (paragraph [0022] of Evans).

65. As to claim 11, Fry as modified by White and further modified by Evans teaches contents of the data island and contents of the document are synchronized when the document is run inside the host application via data binding (paragraph [0022] of Evans).

66. As to claim 19, Fry as modified by White and further modified by Evans teaches a separation component (paragraph [0027] of Fry) that generates an editable data island in a document of the host application (paragraph [0022] of Evans).

67. As to claim 20, this claim is rejected for the same reasons as claim 11 since claim 20 recites the same or equivalent invention, see the rejection to claim 11 above.

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68. As to claim 23, this claim is rejected for the same reasons as claim 10 since claim 23 recites the same or equivalent invention, see the rejection to claim 10 above.

69. As to claim 30, Fry as modified by White and further modified by Evans teaches separating data from a view model of the program model (paragraph [0029] of Fry) by, generating data that conforms to the schema (paragraphs [0029] and [0043] of Fry); and saving the data as a data island in a document of the application (paragraph [0022] of Evans).

70. As to claim 35, Fry as modified by White and further modified by Evans teaches the data model is generated by, conforming the data to the schema (paragraphs [0029] and [0043] of Fry);

and saving the data as a data island in a document of the application (paragraph [0022] of Evans).

71. As to claim 36, Fry as modified by White and further modified by Evans teaches connecting the data model to the data island (paragraph [0022] of Evans); and

synchronizing contents of the data island with contents of the document when the application processes the document (paragraph [0022] of Evans).

Response to Arguments

72. Applicant's arguments with respect to claims 1-12 and 14-37 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

73. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

74. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

75. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KimbleAnn Verdi whose telephone number is (571)270-1654. The examiner can normally be reached on Monday-Friday 7:30am-5:00pm EST..

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76. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

77. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KV

November 7, 2008

/Li B. Zhen/

Primary Examiner, Art Unit 2194